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A Risk Profile of Lenders' Farm Loan Portfolios

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ABSTRACT

Farm lenders will face difficult credit problems into at least the intermediate future. As much as 25 to 40 percent of the outstanding debt held by banks and production credit associations was owed by farmers with debt/asset ratios of 60 percent or more on January 1, 1980, when farmland values were near peak levels. Although the Farmers Home Administration held the highest percent of farm loans owed by high leverage farmers, production credit associations, merchants, and commercial banks had a relatively large percentage of their farm loans directed at high leverage farmers. The Delta and Southeastern States had the highest percentage of farm debt owed by highly leveraged farmers. Given the general deterioration of farmland values in many regions of the country since 1980, the situation today is likely much worse, with the Delta and Southeastern States remaining in the most critical condition.

Keywords: Farm credit, lender risk, regional risk, agricultural debt.

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INTRODUCTION

The agricultural sector has experienced extremely difficult financial conditions. Low and volatile real farm income, growing debt, record high interest rates, and declining value of farmland have all converged to place many farmers--particularly highly leveraged operators--in vulnerable financial positions. The economic and financial environment of the times dictated financial management strategies pursued by many in agriculture during the seventies. Those strategies, however, have exacerbated the current situation. High inflation and low real interest rates made the use of financial leverage an effective firm growth strategy. Indeed, farm debt grew at a compounded annual rate of 9 percent during the first half of the seventies and 15 percent during the second half compared with a rate of 7.9 percent in the sixties.

Much attention has been directed at the financial status of debt-burdened farm operators with less, but increasing, concern expressed about agricultural lenders. Recent analyses examining loan loss, profitability, and solvency experiences of agricultural lenders conclude that while loan losses are up sharply in recent years, the profitability and solvency of agricultural lenders have not been seriously impaired (1, 2, 3,). 1/

This paper will offer a unique, though one-dimensional, perspective on the risk profile of agricultural lenders, using the 1979 Farm Finance Survey of the Census of Agriculture. The Farm Finance Survey, conducted in 1980, asked farmers to indicate, among other things, how much debt they owed and to whom it was owed. Additionally, they were asked to give a detailed account of their farm assets. These balance sheet items reflect their status as of January 1, 1980. A risk profile of each lender was derived by assigning each dollar of debt owed to each lender to one of nine borrower debt/asset ratio categories. Hence, based on the farmers response, the risk exposure of every major category of farm lender can be evaluated by contrasting the percentage of the total dollar farm loan portfolio directed to high risk agricultural borrowers. For the purposes of this paper, high risk borrowers are defined as those with debt/asset ratios in excess of 60 percent.

1/ Underlined numbers in parentheses refer to literature cited at the end of this report.

REGIONAL RISK RANKINGS 2/

The data provide some surprises with the biggest being the magnitude of the percent of farm debt owed by highly leveraged operators (table 1). The percentage of farm debt held by highly leveraged operators ranged from 18.2 in the northeast to 32.2 in the Delta States. Regions with the highest level of lender risk exposure were the Delta States, the Southeast, and the Pacific States. Regions of lower risk included the Corn Belt, Lake States, and the Northeast.

Table 1-- Risk rankings of lender agricultural loan portfolios by region, 1980

Region	Percent of farm loan portfolio held by high-risk borrowers
Delta States	32.2
Southeast	29.5
Pacific	26.2
Mountain	25.9
Northern Plains	25.1
Appalachian	24.1
Southern Plains	21.7
Corn Belt	21.2
Lake States	18.5
Northeast	18.2

Compiled by ERS, USDA, from data in 1979 Farm Finance Survey, Census of Agriculture.

A variety of factors might explain these risk rankings. It is not the purpose of this paper to explore these factors in any depth, but two will be mentioned here. Casual observation reveals that some relationship probably exists between the regional growth in the value of farmland during the 1978-80 period and the regional risk rankings in 1980. It appears that in regions of lower risk, such as the Corn Belt, Lakes States, and the Northeast, the growth in farmland values began to moderate during the last few years of the decade while accelerating in the high-risk regions. One could hypothesize that in the high-risk regions lending practices reflected expectations of continued rapid growth in the value of farmland. Lenders continued to allow some aggressive, growth-oriented farmers to carry excessive short- and intermediate-term debt, expecting that rapidly rising land values would soon bring farm risk exposure into balance. Possibly the same type of philosophy was not as commonplace in the low-risk regions partly due to the already moderating growth in farmland values.

Additionally, one could attribute the risk rankings in table 1 to the types of agriculture that are prevalent in the various regions. For example, types of farming with relatively large percentages of highly leveraged operators (poultry, cotton and rice) account for much of the agriculture in the Delta

2/ See Appendix for regional definitions.

States and Southeast while dairy, with relatively few highly leveraged farmers, dominates in the Northeast and Lake States.

RISK RANKINGS BY LENDER

In accordance with expectations, the Farmers Home Administration (FmHA) had the highest aggregate nationwide risk ranking (table 2). As the lender of last resort, and one who lends a higher portion of the asset value, FmHA lends to farmers who cannot obtain credit elsewhere. As would be expected, FmHA's loan portfolio is dominated by highly leveraged operators. According to the survey, more than 38 percent of FmHA's loan portfolio was directed to operators with debt/asset ratios over 60 percent.

FmHA was followed by production credit associations (PCA's), merchants, and commercial banks with 28.2 percent, 26.9 percent, and 23.4 percent of their loans to farmers in this category, respectively. These rankings are possibly explained by the fact that these three 'lenders' are often faced with the decision to extend additional shorter term credit to farmers experiencing cash-flow problems (often associated with more indebtedness), allowing them to continue to operate, and hopefully get through their financial difficulties or to deny these farmers access to funding that may be vital to their continued existence. Suppliers of such credit invariably increase the riskiness of their loan portfolios in order to avoid realizing loan losses. Real estate lenders, life insurance companies, and Federal Land Banks (FLB's) show the smallest percentage of their farm loan volume owed by high-risk borrowers. These suppliers of credit are generally not as involved with the aforementioned extension of "emergency" operating credit.

The magnitude of the percentages in table 2 helps explain the sharp increases in loan losses which all categories of lenders have experienced in the last few years. In 1983, loan losses as a percent of outstanding loans were 1.22 percent for PCA's, 0.93 percent for agricultural banks, 0.016 percent for FLB's and 0.15 percent for FmHA. These rankings for the private lenders correspond to those of table 2 and suggest that possibly FmHA may not be writing off loan losses as rapidly as private lenders.

Table 2--Risk rankings of aggregate lender farm loan portfolios, 1980

Lender	Percent of farm loan portfolio held by high risk borrower
1. FmHA	38.1
2. PCA's	28.2
3. Merchants	26.9
4. Banks	23.4
5. Prior Owners	20.6
6. Commodity Credit Corporation	18.4
7. Insurance Companies	17.6
8. FLB's	17.3

Compiled by ERS, USDA from data in 1979 Farm Finance Survey, Census of Agriculture.

Of the three private lenders for which such data are available, the FLB's had the lowest loan-loss ratio in 1983. However, by 1983 this ratio had increased 80-fold from 1980, the most of any of these farm lenders.

RISK RANKINGS OF LENDERS BY REGION

A more detailed portrayal of risk is provided in table 3 where lender rankings are provided for each region. Both the relative rankings and the absolute percentage of loans owed by highly leveraged farmers varied regionally for each lender. FmHA ranked first in every region except the Southern Plains and the Pacific States. Banks and PCA's appeared mostly in the top three risk-ranking categories among the private lenders. However, the percent of high-risk loans in each region varied widely by lender. For example, in the Northeast, the percentage of high-risk borrowers varied from 3.7 percent for the Commodity Credit Corporation to 13.3 percent for commercial banks to 38.8 percent at the FmHA.

RISK RANKINGS OF REGIONS BY LENDER

The extent of each lenders' risk exposure varied considerably by region (table 4). For example, the survey suggests that 32.7 percent of the farm loan portfolio of insurance companies in the Pacific States was owed by highly leveraged farmers making the Pacific the highest risk region for this type of lender. The Pacific ranked relatively low, however, for FLB's, FmHA, and PCA's.

There was considerable regional variability in the percent of high-risk debt owed to each type of lender. Although FmHA had the highest percentage of high-risk loan volume, it showed the least portfolio variability across regions. Conversely, the CCC and insurance companies had low-risk farm loan portfolios overall, but exhibited the highest variability across regions.

IMPLICATIONS

Proper evaluation of lender risk cannot be made without reviewing other factors that bear on the financial condition of agricultural lenders. In addition to the type of data presented in this paper, one must consider items such as the lenders' profitability and capital position, the profitability of agriculture as an industry, the extent of agricultural loans in the total loan portfolio, the overall economy, and government farm policies.

These data are particularly useful to the extent that they provide insight into the current farm credit situation. Thus far, this paper has presented a one-dimensional risk profile of farm lenders when real estate values were almost at their peak and the beginning of what has been characterized as the worst farm recession since the thirties. More current data show aggregate debt-to-asset ratios have continued to rise between 1980 and 1984 in every region of the country, with increases ranging from 2.8 percent in the Southern Plains to 46.0 percent in the Corn Belt (table 5). Hence, the regional rankings appearing in table 1 have possibly changed.

Table 3-- Risk rankings of lender farm loan portfolios by region and lender, 1980 1/

Northeast		Lake States		Corn Belt		Northern Plains		Appalachian	
Lender	Percent	Lender	Percent	Lender	Percent	Lender	Percent	Lender	Percent
FmHA	38.8	FmHA	32.7	FmHA	33.6	FmHA	38.4	FmHA	32.6
Ins. Cos.	20.6	PCAs	24.5	PCAs	29.8	PCAs	36.6	PCAs	27.6
PCAs	15.1	CCC	19.1	FLBs	20.2	Banks	23.1	CCC	23.4
Banks	13.3	Banks	15.3	CCC	19.6	FLBs	19.1	FLBs	23.0
FLBs	10.6	Ins. Cos.	11.9	Banks	18.7	Ins. Cos.	16.6	Banks	17.4
CCC	3.7	FLBs	9.1	Ins. Cos.	9.3	CCC	15.8	Ins. Cos.	1.4
Total	18.2	Total	18.5	Total	21.2	Total	25.1	Total	24.1

Southeast		Delta States		Southern Plains		Mountain		Pacific	
Lender	Percent	Lender	Percent	Lender	Percent	Lender	Percent	Lender	Percent
FmHA	47.5	FmHA	49.6	Banks	27.2	FmHA	50.6	Banks	36.6
PCAs	37.0	Banks	39.2	CCC	27.0	PCAs	29.1	Ins. Cos	32.7
FLBs	24.5	CCC	33.9	FmHA	24.4	Banks	27.3	FmHA	31.8
Banks	22.8	PCAs	25.0	PCAs	20.4	Ins. Cos.	24.3	PCAs	23.8
Ins. Cos.	16.4	FLBs	14.9	FLBs	20.2	FLBs	13.6	CCC	13.1
CCC	7.7	Ins. Cos.	12.6	Ins. Cos.	13.4	CCC	12.0	FLBs	13.1
Total	29.5	Total	32.2	Total	21.7	Total	25.9	Total	26.2

1/ Rankings are based on farm loans to operators with debt-to-asset ratios of 60 percent or greater. Compiled by ERS, USDA from data in 1979 Farm Finance Survey, Census of Agriculture.

Table 4-- Risk rankings of agricultural lenders' farm loan portfolios by region, 1980 1/

FLBs		FmHA		Insurance Companies	
Region	Percent	Region	Percent	Region	Percent
Southeast	24.5	Mountain	50.6	Pacific	32.7
Appalachian	23.0	Delta States	49.6	Mountain	24.3
Southern Plains	20.2	Southeast	47.5	Northeast	20.6
Corn Belt	20.2	Northeast	38.8	Northern Plains	16.6
Northern Plains	19.1	Northern	38.4	Southeast	16.4
Delta States	14.9	Corn Belt	33.0	Southern Plains	13.4
Mountain	13.6	Lake States	32.7	Delta States	12.6
Pacific	13.1	Appalachian	32.6	Lake States	11.9
Northeast	10.6	Pacific	31.8	Corn Belt	9.3
Lake States	9.1	Southern Plains	24.4	Appalachian	1.4

Banks		PCAs		CCC	
Region	Percent	Region	Percent	Region	Percent
Delta States	39.2	Southeast	37.0	Delta States	33.9
Pacific	36.6	Northern Plains	36.6	Southern Plains	27.0
Mountain	27.3	Corn Belt	29.8	Appalachian	23.4
Southern Plains	27.2	Mountain	29.1	Corn Belt	19.6
Northern Plains	23.1	Appalachian	27.6	Lake States	11.1
Southeast	22.8	Delta States	25.0	Northern Plains	15.8
Corn Belt	18.7	Lake States	24.5	Pacific	13.1
Appalachian	17.4	Pacific	23.8	Mountain	12.0
Lake States	15.3	Southern Plains	20.4	Southeast	7.7
Northeast	13.3	Northeast	15.1	Northeast	3.7

1/ Rankings are based on farm loans to operators with debt-to-asset ratios of 60 percent or more. Compiled by ERS, USDA from data in 1979 Farm Finance Survey, Census of Agriculture.

Table 5--Regional farm debt-to-asset ratios, 1980 and 1984

Region	1980	1984	Percentage increase
		Percent	
Corn Belt	15.0	21.9	46.0
Northern Plains	19.3	27.1	40.4
Lake States	19.4	26.3	35.6
Northeast	16.0	20.0	25.0
Delta States	17.2	21.2	23.3
Southeast	18.5	22.6	22.2
Mountain	17.1	20.0	17.0
Appalachian	16.7	19.3	15.6
Pacific	21.0	23.4	11.4
Southern Plains	14.5	14.9	2.8

1/ Source: USDA, ERS, Economic Indicators of the Farm Sector: State Income and Balance Sheet Statistics, 1982. ECIFS 2-2 January 1984.

The Delta and Southeast States will probably remain on top of the list with considerable reshuffling occurring for the other regions. The percentage of farm debt owed by highly leveraged farmers has also probably increased since 1980 in all regions.

Changes in lender risk rankings may have occurred for a variety of reasons ranging from conditions of the local agricultural economy to management of the lenders' agricultural loan portfolio to declining real estate values. Among these management factors is the extent to which lenders have been able to transfer problem, often highly leveraged, customers to FmHA. For some lenders, use of this "safety valve" may have enabled them to improve their risk situation. For others, it has perhaps allowed them to minimize the deterioration of their portfolios. Access to the FmHA "safety valve" has been more difficult since 1981 when the flow of funds from the Economic Emergency Loan Program was reduced. Even so, from 1980 to the end of 1983 total FmHA outstanding farm loans grew at a rate of 11.7 percent compared with an increase for all other lenders of only 6.1 percent, indicating the FmHA "safety valve" was still available after 1980.

It is much more difficult to speculate on the current financial disposition of specific categories of farm lenders without more detailed data. Some studies (1, 2, 3) indicate that agricultural lenders have maintained relatively strong profitability and capital positions, indicating a capacity to cope with future difficulties in the farm sector. The data in this paper, however, suggest that this resiliency may well be challenged over the next few years. That is, farm lenders will probably face a challenging credit environment until farmers see a significant improvement in farm incomes and lower interest rates.

As long as interest rates remain substantially higher than the rate of return to farm assets, and the prospects for growth in asset values remains dim, borrowing can be a hazardous financial management strategy for both lender and farmers. The relatively large share of farm lenders' agricultural loans which is in a high-risk category suggests that lenders will be extremely careful in evaluating future loan requests. They will scrutinize more closely the applicants' ability to repay loans out of projected cash flows and not from asset appreciation. While lenders are nursing their problem loans back to health or out of existence, there will be fierce competition for the remaining high-quality farm customers, such as those with low leverage and high earnings. There is a sizable pool of low-leveraged borrowers as, based on estimates made by Melichar, there are about 220,000 medium- to large-sized farmers with debt-to-asset ratios of 10 percent or less, representing about a third of all commercial farms in the country (3). Hence, farm lenders will need a rather aggressive marketing posture to generate business from high-quality borrowers.

These data do not suggest imminent crisis in the farm credit delivery system. Both Hughes and Melichar show that the farm credit system and the average agricultural bank have adequate capital to weather the stormy financial conditions in agriculture (2, 3,). Conditions can vary substantially, however, due to differences in the state of the local economy. Performance of real estate markets, weather, and type of production can differ considerably from region to region. However, the census data presented in this paper suggest that the credit difficulties experienced by many farm lenders may continue for several years to come.

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APPENDIX

Regional definitions

Northeast:	ME, NH, VT, NY, MA, RI, CT, NJ, PA, MD, DE
Lake States:	MI, WI, MN
Corn Belt:	OH, IN, IL, IA, MO
Northern Plains:	ND, SD, NB, KS
Appalachian:	WV, VA, NC, KY, TN
Southeast:	SC, GA, AL, FL
Delta States:	AR, MS, LA
Southern Plains:	OK, TX
Mountain:	MT, ID, WY, CO, UT, NV, NM, AZ
Pacific:	WA, OR, CA